

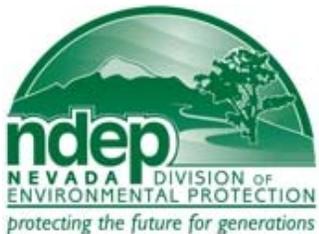
# Workshops for Proposed Regulations

**Nevada Division of**

**Environmental Protection**

Carson City, NV ~ December 15, 2005

Elko, NV ~ December 19, 2005 (Rescheduled)



# NDEP Representatives

- **Air Pollution Control**

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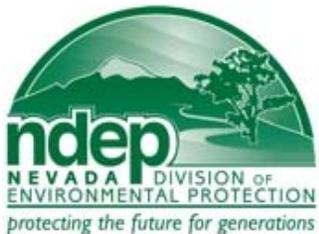
# Public Participation

- Many Ways to Participate and Comment
  - ◆ Questions and Comments period today for each proposal
  - ◆ Written Comments are encouraged by letter:

Nevada Division of Environmental Protection  
Bureau of Air Pollution Control  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701
  - ◆ E-mail us your Comments
  - ◆ Call to discuss your Comments

# Proposal for Amendments to Existing Air Program Regulations

Proposal to amend NDEP  
Air Regulations to adopt changes to  
US EPA Federal Regulations



# Regulation Amendment Process

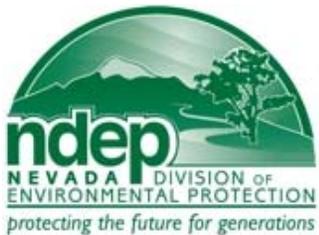
- Draft Regulation Available
  - ◆ November 29, 2005 ~ posted to SEC website
  - ◆ [http://www.sec.nv.gov/main/regulatory\\_workshops0105.htm](http://www.sec.nv.gov/main/regulatory_workshops0105.htm)
- Workshops
- State Environmental Commission (SEC) Hearing
  - ◆ Late January - Early February 2006
  - ◆ See <http://www.sec.nv.gov/>

# Amendments to Existing Air Program Regulations

- Why Amendments are Necessary
- Summary of Proposed Amendments

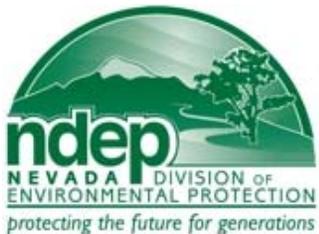


# Questions & Comments?



# Proposal for New Air Program Regulations

Proposal to adopt the  
Nevada Mercury Air Emissions  
Control Program  
(NMCP)



# Regulation Development Process

- Program Roll-Out & Press Release
  - ◆ November 17, 2005
  - ◆ <http://ndep.nv.gov/mercury>
- Draft Regulation Available
  - ◆ December 2, 2005
  - ◆ updates for addition of fee schedule and Tier 1 Units list - December, 2005
- Workshops
- State Environmental Commission Hearing
  - ◆ Late January - Early February 2006
  - ◆ See <http://www.sec.nv.gov/>

# Today's Purpose

- We are here to provide you with a comprehensive program overview
- We are here to answer questions, take comments and address concerns from everyone interested in voicing them
- Comments and questions will be heard after the presentation

# Overview

- Voluntary Mercury Reduction Program
- Building on the Success
- NMCP Takes Mercury Emission Controls to the Next Level
- Overview of the Regulatory Program
- NMCP Next Steps
- NDEP's Vision for the Future
- Questions & Comments

# Genesis of the Voluntary Mercury Reduction Program



- 1999: Metal mining industry required to submit 1998 mercury emissions data for Toxic Release Inventory (TRI)
- 2000: Released 1998 TRI numbers show five mining properties account for more than 90% of emissions
- 2001: EPA toured sites to analyze sources and controls
- 2002: NDEP and EPA developed Voluntary Mercury Reduction Program with four largest mining companies

# Goals for Voluntary Mercury Reduction Program (VMRP)

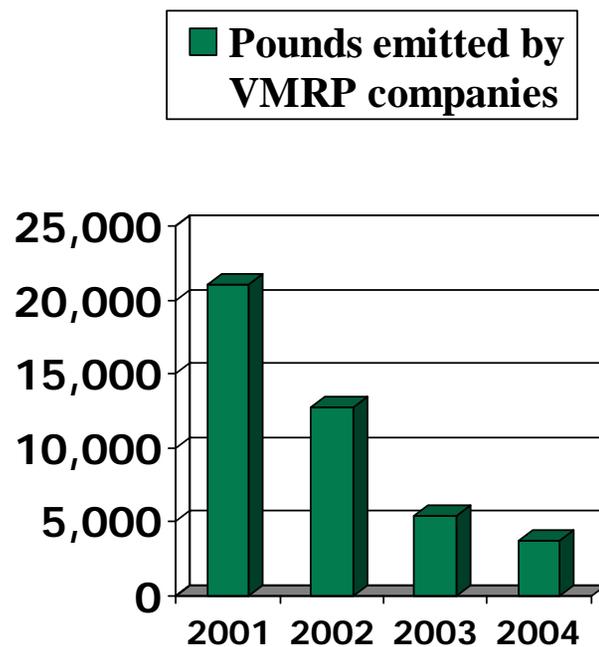
- Achieve significant, permanent and rapid reductions in mercury air emissions from precious metal mining operations
- Achieve reductions through approaches that are most suitable for each individual mining facility
- Encourage flexibility in technology innovation and greater reductions per transaction cost

# Goals for Voluntary Mercury Reduction Program (VMRP)

- Numerical Goals:
  - ◆ 33% reduction in mercury air emissions by 2003
  - ◆ 50 % reduction by 2005
- Original VMRP Goals Exceeded



# Program Resulted in Rapid and Significant Reductions



- From a 2001 VMRP baseline of 21,098 lbs, actual reductions experienced:
- 50% in 2002
- 74% in 2003
- 82% in 2004

# Building on the Success of the Voluntary Program

- Envisioned extension of the program beyond 2005
- Throughout 2005 conducted numerous meetings with stakeholders: EPA Regions and EPA Headquarters; state regulators; the environmental community; and industry representatives
- Meetings identified opportunities for enhancing Nevada's mercury program
- Incorporated proposals and concerns from stakeholders into goals for a new program

# Building on the Success of the Voluntary Program

- The Nevada Mercury Air Emission Control Program is the first regulatory program of its kind to control mercury emissions from precious metal mining operations

# Authority

- NDEP has broad statutory authority that currently exists to implement this program under NRS 445B.100(2) and 445B.235

# NMCP Takes Mercury Emissions Controls to the Next Level

- Regulatory program and permitting process
- Enhanced ability for NDEP to implement and enforce the program
- Expanded coverage to all precious metal mining operations
- Unit level applicability instead of by facility
- Enhanced monitoring, testing, recordkeeping, reporting, and O & M documentation

# NMCP Takes Mercury Emissions Controls to the Next Level

- Designed to ensure that Maximum Achievable Control Technology (MACT) level controls are permitted and operated
- Process will establish a case-by-case Nevada MACT (NvMACT)
- Early reductions encouraged through Early Reduction Credit (ERC) Program

# Public Participation

- Opportunities for public participation throughout the process:
  - ◆ Finalization of the program and regulation development
  - ◆ Permit review and comment periods
  - ◆ NDEP Determination of de-minimis levels
  - ◆ NDEP Determination of NvMACT

# Nevada Mercury Control Program Overview

- Three Tiered Program
  - ◆ Tier 1 - Current voluntary program units
  - ◆ Tier 2 - All other units at precious metal mining facilities
  - ◆ Tier 3 – De minimis or no mercury emissions

# First Step

- Questionnaire responses due to NDEP by March 15, 2006 example items:
  - ◆ Facility processes
  - ◆ Thermal emission units
  - ◆ Existing controls and emission reductions achieved by those controls
  - ◆ Plans to install new controls

# Tier 1 Phase 1 Requirements

- Permit Application and Source Testing
  - ◆ Application for a Hg permit submitted to NDEP within 90 days after the effective date of the regulations
  - ◆ Application includes:
    - Description of thermal emission units and controls
    - Monitoring plan for each emission unit that includes source testing, O&M, recordkeeping and reporting (source testing must be completed by 12/31/06)

# Tier 1 Phase 1 Requirements

- Most existing add-on controls = PMACT
- Examples of PMACT units include:
  - ◆ Wet Venturi Scrubber/Carbon Filtration installed at Barrick Goldstrike Mine in March 2002
  - ◆ Gas Quench Scrubber installed at Queenstake Jerritt Canyon West Roaster in 2002
  - ◆ Baghouses and SO<sub>2</sub> Scrubber installed at the Newmont Gold Quarry Operations Area Ore Preheaters before 2001

# Tier 1 Phase 1 Requirements

- Permitting timelines will be consistent with our current regulatory timeframes, i.e., 30 day completeness review and permit issued within 12 months after that
- VMRP companies have committed to comply with the monitoring requirements in the application upon submittal of the app

# Tier 1 Phase 1 Requirements

- Early Reduction Credit
  - ◆ Facilities may propose the installation of additional controls, but must include a demonstration that the controls constitute the best control available and will reduce Hg emissions
  - ◆ If the criteria are met, Tier 1 facilities would not be required to install NvMACT on ERC units until 3 yrs after Tier 1 facilities would otherwise be required to install NvMACT on uncontrolled units

# Tier 1 Phase 2 Requirements

- NvMACT analysis submitted to NDEP for each emission unit within 21 mos. of the effective date the regulations that includes an appropriate Hg emission standard or limitation, if feasible
- If infeasible, alternatives to a Hg emission standard or limitation would be evaluated
- NDEP reviews NvMACT for completeness

# Tier 1 Phase 2 Requirements

- Preliminary determination of NvMACT made over the next 6-12 mos
- Final determination with 17 mos. of receiving the NvMACT analysis
- The facility's Hg permit will be revised to incorporate the final NvMACT determination and any revisions to the monitoring plan

# Testing and Monitoring

- Program will require monitoring of the control devices to assure that they are operating properly to minimize mercury emissions
- When emissions standards or limits are established, the NDEP will evaluate all testing and sampling methodologies available, including mercury Continuous Emissions Monitors (CEMs), to ensure adequate data is obtained to demonstrate compliance with the limits

# Tier 2 and Tier 3 First Step

- Applicability
  - ◆ All non-Tier 1 thermal units that emit Hg precious metal mining operations are initially considered Tier 2
- Questionnaire
  - ◆ Responses due by March 15, 2006

# Tier 2/3 Determination

- NDEP Review of Questionnaire
  - ◆ Initial determination for units to be qualified as Tier 3 based on no Potential to Emit (PTE) mercury from a thermal process unit
  - ◆ Initial determination of de minimis emission rate (if any)
  - ◆ All other units remain as Tier 2

# Tier 2 Phase 1 Requirements

- Application for a Hg permit must be submitted within 6 months of the effective date of the program, and will include:
  - ◆ ID of thermal units that emit Hg
  - ◆ List of existing or planned controls
  - ◆ Monitoring plan consistent with Appendix 2
- And/or petition the NDEP for Tier 3 Status for individual units
- No new controls required pending completion of NvMACT review process

# Tier 2 Phase 1 Requirements

- Hg permits will be issued within 18 mos after program effective date requiring:
  - ◆ Continued operation of any existing controls
  - ◆ Monitoring plan
    - Development and gathering additional data

# Early Reduction for Tier 2

- Additional controls can be installed prior to NvMACT determination provided that:
  - ◆ Hg reduction is demonstrated
  - ◆ Controls are considered best controls available
- If NDEP concurs, the Hg permit is issued and controls installed
- Such controls would be considered NvMACT for 2 years after other Tier 2 facilities would be required to install NvMACT (Tier 2 ERC)

# Tier 2 Phase 2 Requirements

- Using information from Phase 1, each Tier 2 facility will submit a NvMACT analysis for each thermal unit that emits Hg
- Determination of final NvMACT for Tier 2 will follow same procedures and guidelines as Tier 1
- Hg permit requirements must be incorporated into the facility's operating permit for Title V only

# Tier 3 Requirements

- Questionnaire ~ Due March 15, 2006
- Three ways to be designated Tier 3:
  - ◆ Questionnaire results in determination of no Potential to Emit mercury from a thermal process
  - ◆ NDEP may establish a de minimis criteria to allow units to become Tier 3
  - ◆ A facility can petition the NDEP for Tier 3 status for individual units

# Tier 3 Requirements

- If petitioned by a Tier 2 facility, NDEP will determine Tier 3 status based on:
  - ◆ Limited Hg PTE without use of add-on controls
  - ◆ Use of work practice standards to limit Hg emissions
  - ◆ Proposed permit limits on Hg emissions
- NDEP determination on Tier 3 petition will be made w/in 60 days of submittal of a written request

# Tier 3 Requirements

- Annual demonstration and certification required of any units designated Tier 3
- All permits are required if limitations are needed to be Tier 3 Class II permits
- A facility cannot escape the program by controlling their Hg emissions through add-on controls. If a facility is adding on controls, it must be Tier 2 and obtain a Hg permit

# New Facilities and Modifications

- Evaluated by NDEP case-by-case and unit-by-unit in accordance with the Tier 2 requirements

# Affect on Title V Permits

- For Title V facilities, the requirements contained in the Mercury Operating Permit to Construct (OPTC) will be required to roll up into Title V permits

# Program Fees

- First Year
  - ◆ Phase 1 Application Fee – Facility basis
    - \$50,000 distributed among all facilities filing a Phase I Application - based on Questionnaire
  - ◆ Application for New or Modified Hg OPTC
    - \$5,000 per application
  - ◆ Maintenance Fee – Unit basis
    - \$250,000 distributed among the number of affected units statewide – based on Questionnaire

# Program Fees

- Subsequent Years
  - ◆ Application for New or Modified Hg OPTC
    - \$5,000 per application
  - ◆ Maintenance Fee – Unit basis
    - \$250,000 distributed among the number of affected units that have obtained a Mercury OPTC
    - Number of units determined by May 1 annually

# NMCP Next Steps

- Public workshops - December 2005
- NDEP Preferred Path
  - ◆ Finalization of Proposed Regulations
  - ◆ SEC Hearing Late January – Early February
- Alternatively
  - ◆ Significant modification and additional workshops required
  - ◆ SEC Hearing in April or later
- Program Adoption and Implementation in 2006

# NDEP's Vision for the Future

- NMCP will bring enforceable mercury controls at all affected NV precious metal mining operations
- NMCP will push for the best control technology
- Full implementation of NvMACT by 2013
  
- *This is the next phase of Nevada's mercury program, not the end of the story*
- *NDEP is committed to a 5-year review cycle*

# Rules of Engagement

- We intend to provide equal opportunity for everyone's comments; therefore, please:
  - ◆ Let us know of your affiliation, if any
  - ◆ Let us know if you are voicing a question, making a comment, or have a proposal
  - ◆ Do not interrupt the speaker with the floor
  - ◆ Respect the thoughts and comments of others
  - ◆ Take ownership of your comments
  - ◆ If you agree with a prior comment, feel free to say so; however, please try to avoid duplicating points

# Questions & Comments?

